



Keep Your Batteries in Peak Condition

New Improved BMS Plus is now Lithium Ion Compatible

The Motorola Battery Maintenance System Plus (BMS Plus) is all you need to insure top performance from all your Nickel-based and Lithium Ion* batteries.

Proper battery maintenance is important for 2 reasons:-

1. Knowing the delivered capacity of a battery ensures that it is capable of providing the right amount of energy for a specific application.
2. Checking a battery for faults such as shorted or reversed cells saves you servicing time and money on a perfectly good radio.

The BMS Plus will thoroughly diagnose your battery through the Condition, Discharge and Analyze modes. Voltage, capacity, battery fault, cycle count and all modes of operation are comprehensively displayed, and you can select the maintenance or analysis mode of your choice.

Key Benefits

- Easy to use.
- Supports hundreds of 2-Way radios, cellular phones, camcorders, and power tool batteries.
- Charges/discharges, conditions, analyzes and performs cycle tests.
- Effective evaluation tool for new batteries in bid and tender projects.
- Printer options for record keeping.
- Displays time and date for easy tracking.

Additional Features

- Fast charge and discharge.
- Analyze Mode – Measures and tracks battery voltage and capacity (the battery's ability to provide power over time).
- Condition Mode -Rejuvenates low capacity batteries (depressed voltage due to "memory effect").
- Detects most faulty and low capacity batteries.
- LCD and front tactile control for each station allows a broad variety of batteries to be serviced independently and simultaneously.
- Flexibility-Services virtually all wireless products' NiMH and NiCd batteries with a wide variety of plug-in battery adapters. (order separately)
- Compatible with all NiMH, NiCd and Lithium Ion* batteries.

Adapters

The BMS Plus offers hundreds of adapters to service your fleets of batteries. The adapters we provide allow for the following Motorola & non-Motorola products to be used with the BMS Plus.

Motorola:	Conventional, Trunked and iDEN 2-Way Radios, Personal Communication/Cellular Telephones
Ericsson:	2-Way Radios and Personal Communication/Cellular Telephones
Nokia:	PCS/Cellular Telephones
Standard:	2-Way Radios
Kenwood:	2-Way Radios
Uniden:	2-Way Radios
Icom:	2-Way Radios



WPLN4080BR

Specifications

Model No.:	WPLN4079BR (115V, US Plug) WPLN4080BR (230V, Euro Plug) WPLN4081BR (230V, UK Plug)
Field Lilon Upgrade Kit:	WPPN4085AR Only the following BMS Plus models (WPLN4079AR, WPLN4080AR & WPLN4081AR with 9.2 version software) can be field upgraded to safely charge and analyze Lithium Ion batteries.
Battery Stations:	Six stations each with 3 button keypad and LCD
Battery Types:	Nickel Cadmium (NiCd), Nickel Metal Hydride (NiMH) & Lithium Ion (Lilon) 3-12 cells
Size:	94mm (H) x 411.5mm (W) x 195.6mm (D)
Weight:	4.2kg
AC Input:	115 or 230V $\pm$ 10%
Charge Rate:	600mA $\pm$ 5%
Discharge Rate:	600mA $\pm$ 3%
Battery Voltage:	3.6V DC — 14.4V DC
Printer Port**:	Serial — RS-232C port (use female 9-pin to male 25-pin cable)



WPPN4079AR

CDN6188A

TDN9452A

TDN9435C

* Lilon battery adapter is used for charge or analyze function only. Conditioning cycling is not required for Lilon batteries.

**The BMS Plus printer port supports serial printers compatible with the Star Micronics SP200 series running in STAR mode. These receipt printers are available from many office supply dealers and distributors.

BATTERY MAINTENANCE SYSTEM PLUS ADAPTER LIST

Battery Maintenance System Plus		
WPLN4079BR	115V	US cord
WPLN4080BR	230V	Euro cord
WPLN4081BR	230V	UK cord

BATTERY ADAPTER LIST

Motorola P/N	Model Used In	Battery P/N
WPPN4085AR	Lilon Field Upgrade Kit (microP, extraction tool, manual)	For upgrading of WPLN4079AR/4080AR/4081AR
TDN9436A	EXPO	NLN7161/7279/7162/7353
TDN9437A	GP300, GTX, LTS2000 Battery Only	HNN9628/HNN9701
TDN9438A	GP300, GTX, LTS2000 (Battery w/Belt Clip HLN9724)	HNN9808
TDN9662A	GP300, GTX, LTS2000	HNN9628
TDN9452A	GP300, GTX, LTS2000, (w/radio, charge only)	HNN9628/9808
WPPN4083AR	GP308/88s (NiCd and NiMH)	PMNN4017/ 4018 & PMNN4021/4020
WPPN4079AR	GP328/338 (NiCd & NiMH)	All NiCd and NiMH
WPPN4080AR	GP328/338 (NiCd, NiMH and Lilon)	All NiCd, NiMH and Lilon Compatible
CDN6189A	GP350	HNN9360
TDN9662A	P110	HNN8148
TDN9435C	HT1000/MT2000/MTS2000/MTX-8000/MTX-9000	NTN7143/7144/7147/7149
CDN6364A	HT1000/MT2000/MTS2000/MTX-8000/MTX-9000/MTX838	All NiCd and NiMH
TDN9717A	VISAR	NTN7395
CDN6141A	VISAR (NiCd and NiMH)	All NiCd and NiMH
TDN9450A	SABER MX1000 (NiCd Only)	NTN4537/4538/4592/4593
		NTN4594/4595/4596/4992
WPPN4066AR	SABER / ASTRO SABER (NiCd and NiMH)	All NiCd and NiMH
WPPN4087AR	SABER / ASTRO SABER (NiCd, NiMH & Lilon)	All NiCd, NiMH and Lilon Compatible
TDN9434A	SABER-R	NTN7058
RLN4538A	SABER-R (for mobile environ-velcro strap)	NTN7058
WPPN4019AR	XTS3000-NiCd	NTN8294
WPPN4022AR	XTS3000-NiCd & NiMH	NTN8299/8294/8295/8297
WPPN4086AR	XTS3000- (NiCd, NiMH and Lilon Compatible)	All NiCd, NiMH and Lilon Compatible
TDN9446A	P10/P50/P60/HT10	HNN9027
TDN9447A	P10/P50/P60/HT10/SP10/SP50	HNN9044/9018
CPCBA1180	GP68/PACER (for rev A,B, and C)	PMNN4000/4001/4002/4003
TDN9451A	STX	NTN4326/4327/4500/4534
TDN9441A	HT600/HT800/MT1000	NTN4563/4564/4584/4585
	MTX800/MTX900	NTN4586/4588/4822/4823
	P200/P210	NTN4824/4825/4868/4869
		NTN5413/5414/5415/5447
		NTN5447-XT/5448
TDN9440A	HT90/HT440	NLN7401/7434/7435/7640/7694
TDN9445A	MX300 (not ruggedized)	NLN4002/5320/5860/8834
		NLN9040/9998
TDN9444A	MX300R	NLN9726
TDN9721A	HT220, MT500 slimline	NLN4462
TDN9439A	HT220 Omni & MT500 Omni	NLN4463/6761/6900/8232
TDN9449A	HT50	NTN5451
TDN9443A	HANDICOM MH10 & MH70	NLN5857/8002/8096
CDN6188A	iDEN i280, i370, i470, i390, i600 (NiCd and NiMH)	NTN80998/8099/8100/8482/8521
RLN4930A	iDEN i500 (NiMH)	NTN8970A/NTN8971A-4.8V/650mAh & 1100mAh
TDN9718A	iDEN (L1000, L3000, L3000E) (NiCd only)	NTN7762A
WPPN4084AR	DCR3000 (Jackal)	SDNN4348B
RLN4988A	i1000, i1000+, i2000 (NiCd, NiMH, Lilon)	NTN8614/NTN8615
RLN5079A	i85s (Lilon)	SNN5704/5705/5706/5716
RLN5134A	iDEN R750 Plus	NTN9037/9038

MOTOROLA CELLULAR

Motorola P/N	Model Used In	Battery P/N
TDN9453A	MicroTAC (UNIVERSAL)	ALL NiCd types
WPPN4056AR	MicroTAC (UNIVERSAL)	ALL NiMH types
TDN9454A	Ultra Classic	ALL
TDN9432A	Clip Lead Interface	UNIVERSAL INTERFACE-CLIP LEAD
TDN9527A	Dip Switch Interface	
RLN4988A	StarTac	NiMH/Lilon types



NON-MOTOROLA 2-WAY

Motorola P/N	Model Used In	Battery P/N
Kenwood		
TDN9479A	KENWOOD TK100,200,300	KNB-1,KNB-2
TDN9485A	KENWOOD TK210,230,310,330	KNB3,KNB3A, KNB4
TDN9486A	KENWOOD TK340	KNB-5,KNB-6
TDN9487A	KENWOOD TK340	KNB-7
WPPN4040AR	KENWOOD TK250,TK350,TK430,TK431	KNB-11A, KNB12A, KNB9A
WPPN4031AR	KENWOOD TK360	KNB-14, KNB15A
Icom		
TDN9470A	ICOM	CM2G,ICBP2,ICCM2,CM18,CM18G
TDN9471A	ICOM	CM3G,ICBP3,ICCM3
TDN9472A	ICOM	CM5AG,CM5G,ICBP5A,ICCM5A
TDN9473A	ICOM	CM7G,ICBP7,ICCM7,CM11,CM11A
TDN9474A	ICOM	CM8G,ICBP8,ICCM8,CM13,CM13G
TDN9506A	ICOM 24AT, WTA, S-SERIES	BP81/82/83/84
TDN9476A	ICOM/ALEX	CM10/10A/10AG/10G
WPPN4035AR	ICOM IC-F30	CM-140
Bendix King		
TDN9475A	BENDIX/KING LPH, LPX	LAA100/105/125, RA105-1/108
Standard		
TDN9480A	STANDARD 734,834,HX300,HX320	BP11, CNB2, CNB2-P
TDN9481A	STANDARD HX500	CNB4, CNB5
TDN9482A	STANDARD HX340, HX440	CINB100AS, CINB101AS,CINB102AS
TDN9483A	STANDARD HX220S	CNB6, CNB7
TDN9492A	STANDARD H240	CNB240,CNB241,CNB242,CNB243
TDN9500A	STANDARD HX530U	CNB530A, CNB531A
WPPN4043AR	STANDARD HX580, HX581	CNB584A
Yaesu		
TDN9468A	YAESU FTC2203, FTC2205, FTC5203	FNB1,FNB2
TDN9488A	YAESU FT23R, FT33R, FT411, FT470	FNB9,FNB10,FNB1,FNB17
TDN9489A	YAESU FT73R, 811, FTH2005, 7005	FNB11, FNB12, FNB12S
TDN9498A	YAESU FTR1123, FTR1143	FNB3, FNB4
TDN9505A	YAESU FTH2070, FT2070, FTC2070	FNB16
TDN9521A	YAESU FTH2009	FNB21S
WPPN4045AR	YAESU VERTEX VX-10	FNB-V47
WPPN4048AR	YAESU VERTEX VX-600	FNB-29

NON-MOTOROLA CELLULAR

Motorola P/N	Model Used In	Battery P/N
Ericsson		
WPPN4053AR	ERICSSON 237,337,338	NiCd types
WPPN4061AR	ERICSSON 237,337,338	NiMH types
CPCBA4519A	ERICSSON 628/688 (NiMH only)	BKB 193 092R1A
Nokia		
WPPN4052AR	NOKIA 21XX Series	NiCd types
WPPN4059AR	NOKIA 21XX Series	NiMH types
WPPN4051AR	NOKIA 232	NiCd types

Important Note:
Special BMS Plus Lithium Ion adapter with protection and charge circuit must be used in conjunction with these upgraded units (Version B).
These adapters will display the words "Lithium OK".

For information on additional adapters, contact your local Motorola offices.

For more information, please contact:

Cat. No: AF 4-04-005 Rev.1



www.motorola.com/cgiss/AP

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Battery Analyzer